Inventors: Edward J. SARE et al. Attorney Docket No.: 07811.0019-00

Reply to Final Office Action mailed May 23, 2008

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims

in the application. Please add new claim 39, as follows:

1. (Previously Presented) A composition comprising a slurry comprising

calcined kaolin, wherein at least about 40% by weight of the calcined kaolin has a

particle size of at least about 1 µm, at least about 40% by weight of the calcined kaolin

has a particle size of at least about 2 µm, and the slurry has a solids content of at least

about 58% by weight, relative to the total weight of the slurry.

2. (Original) The composition according to claim 1, wherein at least about 40%

by weight of the calcined kaolin has a particle size ranging from about 1 µm to about 10

μm.

3. (Original) The composition according to claim 1, wherein at least about 45%

by weight of the calcined kaolin has a particle size of at least about 1 µm.

4. (Original) The composition according to claim 1, wherein at least about 50%

by weight of the calcined kaolin has a particle size of at least about 1 µm.

5. (Canceled).

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6. (Original) The composition according to claim 1, wherein the slurry has a solids content of at least about 60% by weight, relative to the total weight of the slurry.

7. (Original) The composition according to claim 1, wherein the slurry further comprises at least one thickener.

8. (Original) The composition according to claim 7, wherein the at least one thickener is chosen from cellulosic thickeners, montmorillonite, smectite clays, hydrophobically modified ethoxylated urethanes, polyacrylates, polyvinyl pyrrolidone, sodium alginate, xanthan gum, silica thickeners, sodium magnesium silicate, acrylic acid copolymers, and nonionic hydrophobically modified polyethers.

- 9. (Original) The composition according to claim 8, wherein the at least one thickener is a cellulosic thickener chosen from alkyl celluloses, carboxymethyl celluloses, ethylhydroxyethyl celluloses, hydroxymethyl celluloses, hydroxymethyl celluloses, and hydroxypropyl celluloses.
- 10. (Previously Presented) The composition according to claim 7, wherein the at least one thickener is present in an amount effective to stabilize the slurry.

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11. (Original) The composition according to claim 10, wherein the at least one

thickener is present in an amount ranging from about 0.01% to about 4% by weight,

relative to the total weight of the slurry.

12. (Original) The composition according to claim 11, wherein the at least one

thickener is present in an amount ranging from about 0.01% to about 2% by weight,

relative to the total weight of the slurry.

13. (Original) The composition according to claim 1, wherein the slurry further

comprises at least one dispersant.

14. (Previously Presented) The composition according to claim 13, wherein the

at least one dispersant is present in an amount ranging from about 0.01% to about 2%

by weight, relative to the total weight of the slurry.

15. (Original) The composition according to claim 14, wherein the at least one

dispersant is present in an amount ranging from about 0.01% to about 1% by weight,

relative to the total weight of the slurry.

16. (Original) The composition according to claim 13, wherein the at least one

dispersant is chosen from polyelectrolytes, sodium salts of weak acids, potassium salts

of weak acids, and water-soluble organic polymeric salts.

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17. (Original) The composition according to claim 16, wherein the at least one dispersant is a polyelectrolyte chosen from polyacrylates and copolymers containing polyacrylates.

18. (Original) The composition according to claim 13, wherein the at least one dispersant is chosen from 2-amino-2-methyl-1-propanol, polyacrylates, sodium hexametaphosphates, polyphosphoric acid, condensed sodium phosphate, alkanolamines, tetrasodium pyrophosphate, trisodium phosphate, sodium hexametaphosphate, tetrasodium phosphate, sodium tripolyphosphate, sodium silicate, sodium carbonate, sodium salts of naphthalene sulfonic acid, potassium salts of naphthalene sulfonic acid, sodium salts of polymeric carboxylic acid, potassium salts of polymeric carboxylic acid, and polymethacrylates.

- 19. (Original) The composition according to claim 1, wherein the slurry further comprises at least one biocide.
- 20. (Original) The composition according to claim 19, wherein the at least one biocide is present in an amount ranging from about 0.01% to about 1% by weight, relative to the total weight of the slurry.

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21. (Original) The composition according to claim 19, wherein the at least one biocide is chosen from quaternary ammonium compounds, organosulphur compounds,

and halogen-containing compounds.

22. (Original) The composition according to claim 19, wherein the at least one

biocide is chosen from metaborate, sodium dodecylbenzene sulphonate, sodium

benzoate, benzisothiazolin, isothiazolin, thione, glutaraldehyde, bromonitropropanediol,

bromohydroxyacetophenone, dibromodicyanobutane, sodium orthophenylphenate,

dodecylguanidine hydrochloride, oxazolidines, adamantanes, hydantoins,

dibromonitrilopropionamide, bromonitrostyrene, methylenebisthiocyanate, tetrakis

hydroxymethyl phosphonium sulfate, sodium dimethyldithiocarbamate, and

chloromethylphenol.

23. (Original) The composition according to claim 1, wherein the slurry has a pH

ranging from about 8 to about 10.

24. (Original) The composition according to claim 1, wherein the slurry further

comprises at least one pH modifier.

25. (Original) The composition according to claim 24, wherein the at least one

pH modifier is chosen from sodium carbonate, amino-2-methyl-1-propanol, sodium

hydroxide and ammonium hydroxide.

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26. (Original) The composition according to claim 1, wherein the calcined kaolin

has not been subjected to mechanical grinding.

27. (Original) The composition according to claim 1, wherein the calcined kaolin

has been subjected to mechanical grinding.

28. (Original) The composition according to claim 1, wherein the calcined kaolin

comprises mullite.

29. (Previously Presented) A method of preparing a slurry comprising: (a)

providing a calcined kaolin, wherein at least about 40% by weight of the calcined kaolin

has a particle size of at least about 1 µm, and at least about 40% by weight of the

calcined kaolin has a particle size of at least about 2 µm; (b) combining the calcined

kaolin with water; and (c) obtaining a slurry having a solids content of at least about

58% by weight, relative to the total weight of the slurry.

30. (Original) The method according to claim 29, further comprising introducing

at least one dispersant prior to (c).

31. (Original) The method according to claim 29, further comprising introducing

at least one thickener prior to (c).

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32. (Original) The method according to claim 31, wherein the thickener is introduced in an amount effective to stabilize the slurry.

- 33. (Original) The method according to claim 29, further comprising introducing at least one pH modifier prior to (c).
- 34. (Original) The method according to claim 29, further comprising mechanically grinding the calcined kaolin prior to (b).
- 35. (Original) The method according to claim 29, wherein the calcined kaolin has not been subjected to mechanical grinding.
- 36. (Previously Presented) A method of preparing a slurry having a solids content of at least about 58% by weight, relative to the weight of the slurry, said method comprising: providing a calcined kaolin, wherein at least about 40% by weight of the calcined kaolin has a particle size of at least about 1 μm, at least about 40% by weight of the calcined kaolin has a particle size of at least about 2 μm, and the calcined kaolin has not been subjected to mechanical grinding; and introducing the calcined kaolin to water.

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37. (Previously Presented) A paint comprising a slurry comprising calcined

kaolin, wherein at least about 40% by weight of the calcined kaolin has a particle size of

at least about 1 µm, at least about 40% by weight of the calcined kaolin has a particle

size of at least about 2 µm, and the slurry has a solids content of at least about 58% by

weight, relative to the total weight of the slurry.

38. (Previously Presented) A method of making a coated paper or coated paper

board comprising: coating a fibrous substrate with slurry, the slurry comprising calcined

kaolin wherein at least about 40% by weight of the calcined kaolin has a particle size of

at least about 1 µm, at least about 40% by weight of the calcined kaolin has a particle

size of at least about 2 µm, and the slurry has a solids content of at least about 58% by

weight, relative to the total weight of the slurry.

39. (New) A composition comprising a slurry comprising calcined kaolin,

wherein at least about 40% by weight of the calcined kaolin has a particle size of at

least about 1 µm, at least about 40% by weight of the calcined kaolin has a particle size

of at least about 2 µm, and the slurry has a solids content of at least about 58% by

weight, relative to the total weight of the slurry,

wherein the calcined kaolin has not been subjected to mechanical grinding.

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